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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,946	11/03/2000	Josef Laumen	1324	2110

7590 10/23/2002

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EXAMINER

CHAUDRY, M. MUJTABA K

ART UNIT

PAPER NUMBER

2133

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/623,946

Applicant(s)

LAUMEN ET AL.

Examiner

Mujtaba K Chaudry

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because:
 - Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).
 - Item 109 in Figure 4 should perhaps be labeled as “encoder” as stated in the specification.
 - Item 111 in Figure 4 should perhaps be labeled as “logic circuit” as stated in the specification.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
 - Summary of the invention is not submitted. Applicant is requested to submit a summary of the invention.
 - Lines in the specification are to numbered (i.e. 5, 10, 15...) for reference purposes.
 - On page 1, the title of the prior art reference (DE 3032468) should be included.

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- Throughout the specification applicant is requested to avoid using the term “so-called.”
- On page 1, in “Advantages of the Invention” it is not described how this invention makes redundancy coding “simple.” Explicit advantages should be listed.
- On page 2, the second partial encoder 3000 is not shown in Figure 1.
- Applicant is request to place all reference numbers in the specification in parenthesis.
- On page 4 (~mid-way of page) the polynomial $1+x^c \cdot P(x)$ should perhaps be written as $(1+x^c) \cdot P(x)$ as intended.
- The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Stephen B. Wicker (**Error Control Systems** -- ISBN 0132008092).

As per claims 1, 3, 6 and 7, Wicker teaches (text: pages 437-440) encoding and decoding data using Fire codes. Wicker (p. 437, paragraphs 2-3) teaches Fire codes that are capable of correcting a single burst in a variable-length code word as stated in the present application. Wicker teaches (p. 438) coding data with a fire code of generator polynomial, $G(x) = (x^{(2b-1)} + 1) * g(x)$ where $g(x)$ is a irreducible polynomial of degree m and the value of b may be free set within predetermined limits as stated in the present application. Applicant uses the polynomial $G(x) = (x^{(c)} + 1) * P(x)$ and states in the specification (p. 7 of application) that $c = 2b - 1$. Furthermore, the examiner would like to point out that the applicant admits (in "Prior Art" on page 1 of the specification) claims 1, 3, and 6-7.

As per claims 2, 4 and 5, Wicker teaches (p. 438-439) the technique to calculate the value for $2b-1$, which is equivalent to c in the present application. Wicker also teaches (p. 437) a disk register whose length can be set to b , wherein b can be less than m as stated in the present application.

As per claims 8 and 9, Wicker teaches (p. 440) the Fire decoding operation in which the redundancy properties are incorporated as stated in the present application. In particular, steps 3 and 4 (p. 440) Wicker states if one syndrome is nonzero and the other is zero, then the codeword contains a uncorrectable but detectable error, which is analogous to d in the present application. The equation ($d = c + 1 - b$) in the present application which may be interpreted as $c = (b + d) - 1$ wherein the term $b + d$ represents the bundle error and the detectable error and is incorporated in steps 3 and 4 of Wicker.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wicker teaches Fire codes that are capable of correcting a single burst in a variable-length code word. Applicant is requested to provide a full translation of the all the IDS provided. Applicant is further invited to review the additional relevant references provided with this action.

Any inquiries concerning this communication should be directed to the examiner, Mujtaba Chaudry who may be reached at 703-305-7755. The examiner may normally be reached Mon – Thur 7:30 am to 4:30 pm and every other Fri 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, Albert DeCady at 703-305-9595. The fax phone number for the organization where this application is assigned is 703-746-7239.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the receptionist at 703-305-3900.

Mujtaba Chaudry
Art Unit 2133

October 18, 2002

ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER